R2D220-AB02-10

AC centrifugal fan

backward-curved

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Nominal data

Type	**R2D220-AB02-10**
Motor	**M2D068-DF**

Phase		3~	3~
Nominal voltage	VAC	380	440
Wiring		Y	Y
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2800	3250
Power consumption	W	75	110
Current draw	A	0.18	0.20
Min. back pressure	Pa	0	0
Min. back pressure	in. wg	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	50

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

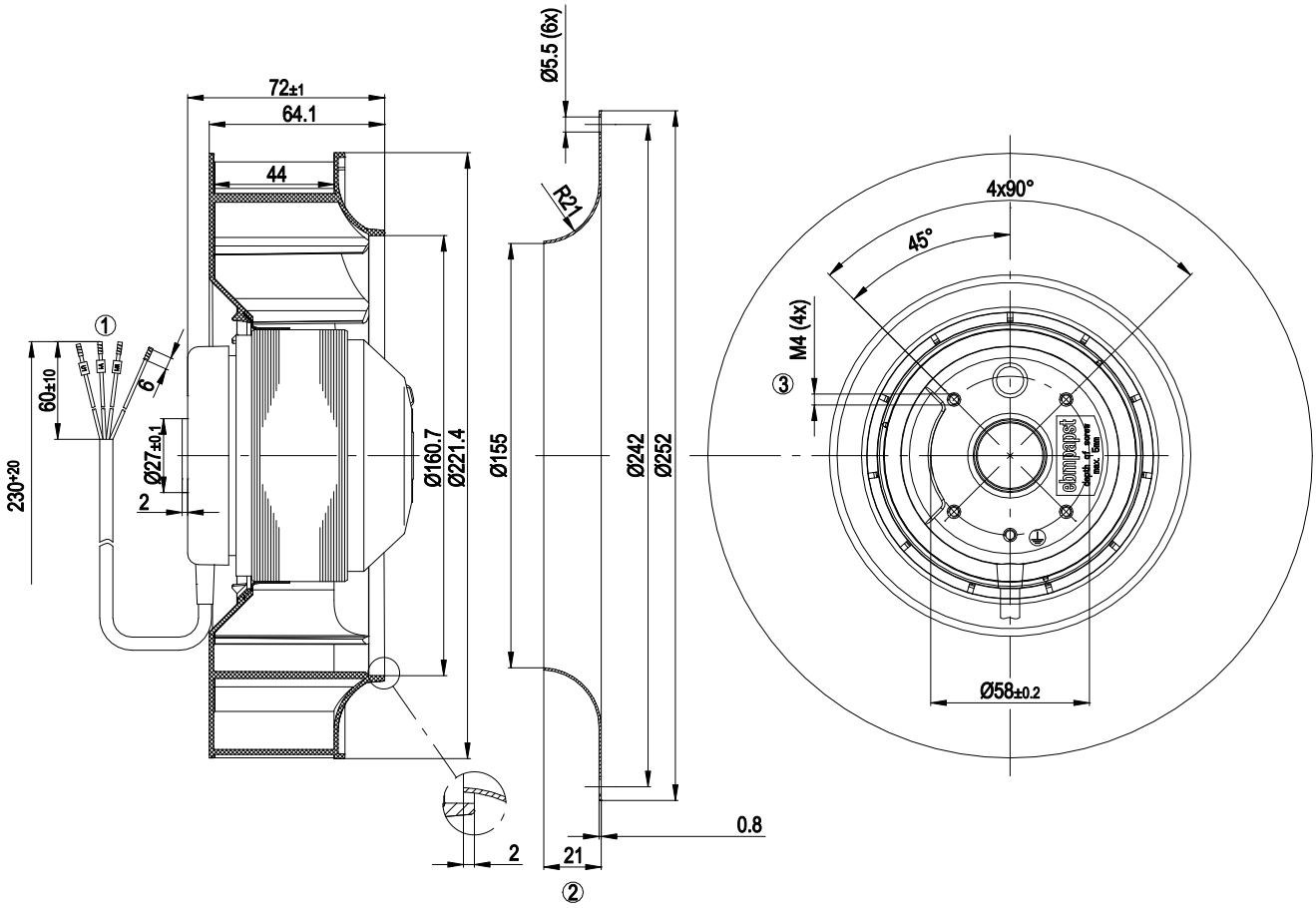
Weight	2 kg
Size	220 mm
Motor size	68
Rotor surface	Painted black
Impeller material	PA6 plastic, glass-fiber reinforced
Number of blades	11
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F2-2; H1+
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1, motor does not have factory-installed overheating protection
Approval	EAC; CCC

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Product drawing



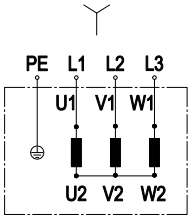
1	Cable silicone 4G 0.5 mm², 4x crimped splices
2	Accessory part: Inlet ring 09609-2-4013, not included in scope of delivery
3	Max. clearance for screw 5 mm

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Connection diagram



Change of rotation direction by reversing two phases

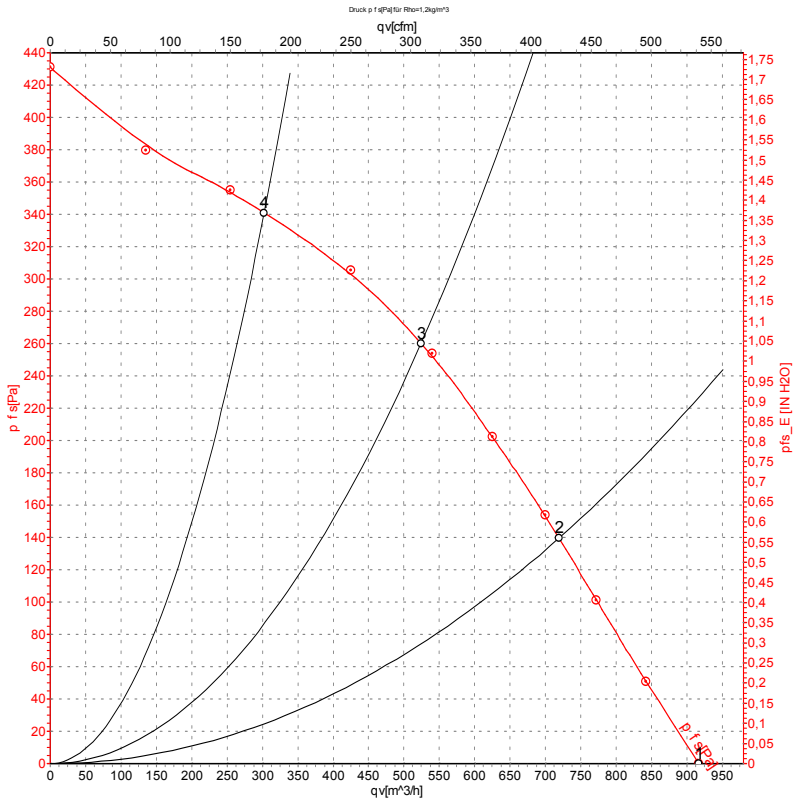
	Three-phase motor	Y	Star connection	L1	black
L2	blue	L3	brown	PE	green/yellow

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Curves: Air performance 50 Hz



Measurement: LU-7969-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	380	50	2800	75	0.18	915	0	540	0.00
2	380	50	2710	84	0.20	720	140	425	0.56
3	380	50	2665	95	0.21	525	260	310	1.04
4	380	50	2710	85	0.20	300	340	180	1.36

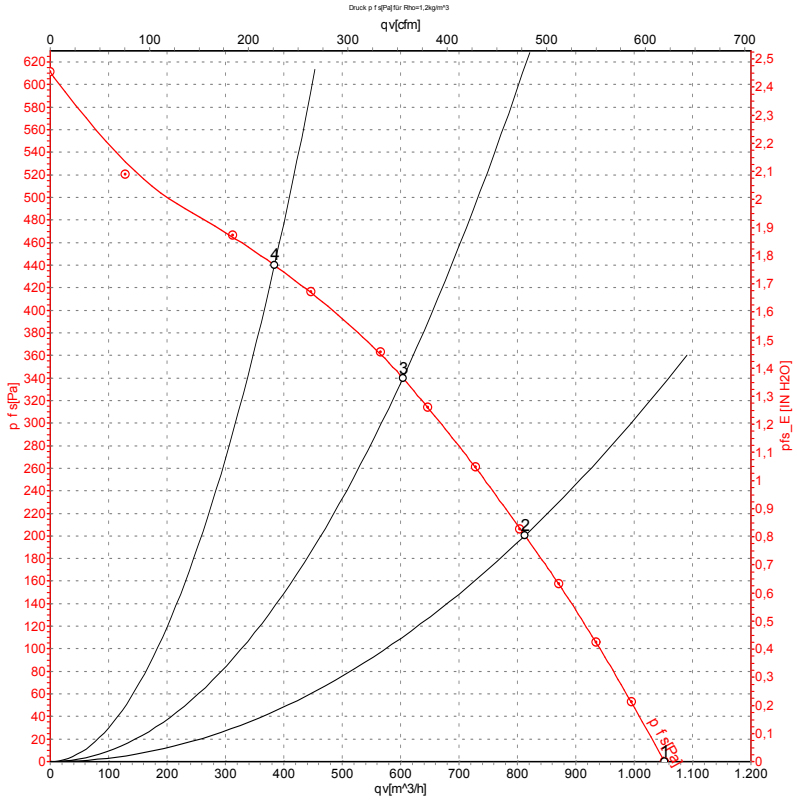
U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



Measurement: LU-7972-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	440	60	3250	110	0.20	1050	0	620	0.00
2	440	60	3150	130	0.23	815	200	480	0.80
3	440	60	3080	145	0.25	605	340	355	1.36
4	440	60	3120	135	0.24	385	440	225	1.77

U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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